REMARKS¹

Claims 1, 3-38, and 40-81 remain pending in this application, with claims 1 and 38 being independent.

In the final Office Action, the Examiner made the following claim rejections, all under 35 U.S.C. § 103(a):

- I. rejection of claims 1-5, 10-13, 15-17, 20, 21, 27, 38-42, 46-50, 52-54, 57, 58, 62, and 74-81 as unpatentable over <u>Murphy et al.</u> (U.S. Patent No. 6,226,744) in view of <u>Ishibashi et al.</u> (U.S. Patent Publication No. 2004/0006695);
- II. rejection of claims 6, 9, 18, 22, 23, 43, 51, 55, 59, 60, and 66 as unpatentable over <u>Murphy et al.</u> in view of <u>Ishibashi et al.</u>, and further in view of de Jong et al. (U.S. Patent No. 7,085,840);
- III. rejection of claims 7, 8, 44, and 45 as unpatentable over Murphy et al. in view of Ishibashi et al. and de Jong et al., and in further view of Chang et al. (U.S. Patent No. 6,715,082) and Yu et al. (U.S. Patent No. 6,067,621);
- IV. rejection of claims 19, 24, 26, 56, and 61 as unpatentable over Murphy et al. in view of Ishibashi et al., and further in view of Teicher et al. (U.S. Patent No. 6,257,486);
- V. rejection of claims 25, 36, 37, 72, and 73 as unpatentable over Murphy et al. in view of Ishibashi et al., and further in view of Geer, Jr. et al. (U.S. Patent No. 6,192,131);
- VI. rejection of claims 28-31, 34, 63-65, 67, and 68 as unpatentable over Murphy et al. in view of Ishibashi et al., de Jong et al., Chang et al., and Yu et al., and further in view of Baird, III et al. (U.S. Patent No. 6.732,278); and
- VII. rejection of claims 32, 33, 35, and 69-71 as unpatentable over Murphy et al. in view of Ishibashi et al., de Jong et al., Chang et al., Yu et al., and Baird, III et al., and further in view of Teppler (U.S. Patent No. 6,792,536).

¹ The final Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicant declines to automatically subscribe to any statement or characterization in the final Office Action.

Application No.: 10/749,558 Attorney Docket No. 06720.0110-01

Applicant traversed the rejection of claims 1-5, 10-13, 15-17, 20, 21, 27, 38-42, 46-50, 52-54, 57, 58, and 62 under 35 U.S.C. § 103(a) as unpatentable over Murphy et al. in view of Ishibashi et al., because the Examiner erred in at least the factual findings, particularly in determining the scope and content of the prior art. See Request for Reconsideration of November 5, 2007, at 3-8. More specifically, Applicant pointed out that Murphy et al. fails to teach or suggest at least a PAD comprising "at least one storage medium storing at least one CA public key, . . . [and] a processing component for authenticating [] one or more received digital certificates using the at least one stored CA public key," as required by independent claim 1. See Request for Reconsideration of November 5, 2007, at 4-5. In addition, Ishibashi et al. fails to cure the deficiencies of Murphy et al. See id. at 5-7.

In response to Applicant's argument that Murphy et al. fails to teach "at least one storage medium storing at least one CA public key," the Examiner alleged that, in Murphy et al., "the CA distributes the smart card that stores public and private RSA cryptographic key pairs, therefore the smart card is interpreted to be a PDA that stores CA public key." See Continuation Sheet of Advisory Action.

Applicant respectfully points out that the public and private RSA cryptographic key pairs are not the same as a CA public key. RSA is merely an algorithm for cryptography. The public and private RSA cryptographic key pairs mentioned in Murphy et al. are likely the public and private keys of the smart card itself, rather than the CA public key. Murphy et al. does not teach or suggest anywhere in its disclosure that the RSA cryptographic key pairs include the CA public key.

Application No.: 10/749,558 Attorney Docket No. 06720.0110-01

Therefore, <u>Murphy et al.</u> fails to teach or suggest at least "at least one storage medium storing at least one CA public key," as recited in claim 1.

Second, in response to Applicant's argument that Murphy et al. fails to teach or suggest "a processing component for authenticating [] one or more received digital certificates using the at least one CA public key," the Examiner alleged that "the smart card [in Murphy et al.] with the use of the interface module can retrieve information on the smart card such as public/private keys and the certificate can be retrieved from the smart card for authentication." See Continuation Sheet of the Advisory Action.

However, Murphy et al. only teaches "[a] [s]ecure gateway server 18 initiates authentication of the user of smart card 10 using authentication module 32." Murphy et al., col. 6, II. 8-11. The authentication module 32 reads user information from smart card 10, retrieves authentication information from a database 26, and compares the two sets of information for authentication of the user of the smart card. See Murphy et al., col. 6, II. 29-47. "Authentication module 32 uses the smart card interface module and the PIN to access and read/write user information from/to smart card 10" See Murphy et al., col. 6, II. 29-31.

Clearly, even a combination of the smart card and the smart card interface module does not authenticate the user of the smart card. It is the authentication module 32 that authenticates the user of the smart card.

Moreover, as Applicant pointed out above, the smart card does not store a CA public key. Instead, the authentication module 32 retrieves authentication information from the database 26 for authenticating the smart card.

Application No.: 10/749,558 Attorney Docket No. 06720.0110-01

Therefore, <u>Murphy et al.</u> fails to teach or suggest that the smart card includes "a processing component for authenticating [] one or more received digital certificates using the at least one CA public key," as required by claim 1.

In conclusion, <u>Murphy et al.</u> fails to teach or suggest at least a PAD comprising "at least one storage medium storing at least one CA public key, . . . [and] a processing component for authenticating [] one or more received digital certificates using the at least one stored CA public key," as required by independent claim 1.

Applicant incorporates the arguments presented in the Request for Reconsideration of November 5, 2007, for establishing the failure of <u>Ishibashi et al.</u> to cure the deficiencies of <u>Murphy et al.</u>, and respectfully requests that the Examiner reconsider and withdraw the rejection of 1-5, 10-13, 15-17, 20, 21, 27, 38-42, 46-50, 52-54, 57, 58, 62, and 74-81.

To establish a <u>prima facie</u> case of obviousness, the Examiner must, among other things, ascertain the differences between the claimed invention and the prior art. <u>See</u> M.P.E.P. § 2144.08(II)(A). Furthermore, the Examiner must clearly articulate the reason(s) why the claimed invention would have been obvious. <u>See</u> M.P.E.P. § 2142. As demonstrated above, the Examiner has mischaracterized the differences between Applicant's claim 1 and at least <u>Murphy et al.</u> reference. Since the Examiner has not properly ascertained the differences between the prior art and claim 1, the Examiner has not clearly articulated a reason why one of ordinary skill would find the claimed combination obvious in view of the cited references. Therefore, a <u>prima facie</u> case obviousness has not been established for independent claim 1 for at least the above reasons.

Application No.: 10/749,558

Attorney Docket No. 06720.0110-01

Each of the other claim rejections was based in part on the Murphy et al. reference. Applicant incorporates the arguments above regarding Murphy et al. and also incorporates the arguments presented in the Request for Reconsideration of November 5, 2007, with regard to the additional references relied upon for the 35 U.S.C. § 103(a) rejections. Applicant respectfully requests that the Examiner reconsider and withdraw these rejections.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: January 4, 2008

Qingyu Yin

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